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A Systemic Eco- innovative approach for Circular Economy

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DG Research & Innovation**

*Research and
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WHAT is ECO-INNOVATION

any form of innovation resulting in or aiming at significant and demonstrable **progress towards** the goal of **sustainable development**, through **reducing impacts on the environment**, enhancing resilience to environmental pressures, or achieving a **more efficient and responsible use of natural resources**

(Eco-Innovation Action Plan, 2011)

Our Vision

SYSTEMIC ECO-INNOVATION

**when all societal stakeholders generate
and share economic and environmental
benefits
and
where all kind of innovations are
addressed in combination with new
organisational and managerial
arrangements**

<http://bookshop.europa.eu/en/systemic-eco-innovation-pbKI0214461/?CatalogCategoryID=h2YKABstrXcAAAEjXJEY4e5L>



Long Term Vision

In 2050, we live well, within the planet's ecological limits. Our prosperity and healthy environment stem from an innovative, **circular economy** where nothing is wasted and where **natural resources are managed sustainably**, and biodiversity is protected, valued and restored in ways that **enhance our society's resilience**.

(7th Environment Action Programme, 2013)

Past trends and future outlooks

The changing global context

- Competition for resources
- Pressures from outside EU
- Planetary boundaries

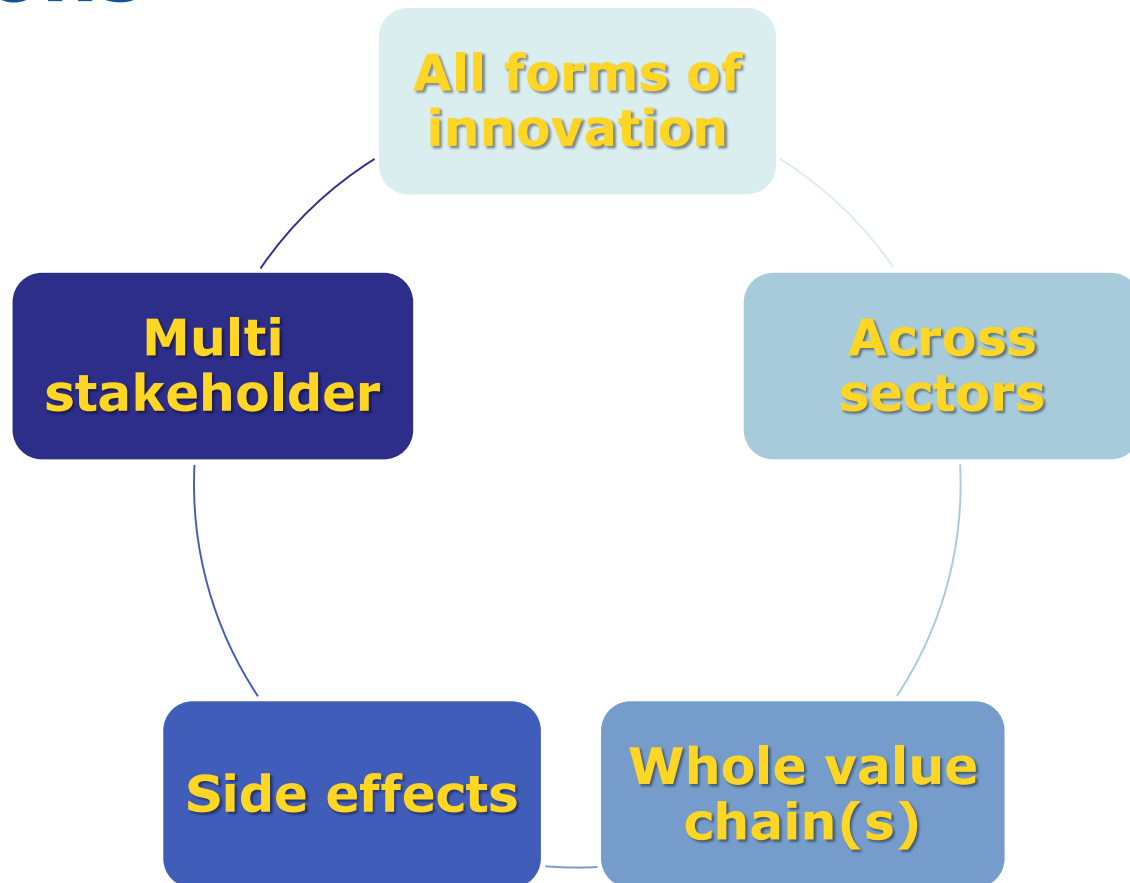
Systemic characteristics

- Complexity
- Uncertainty
- Interdependencies systems (rebound, lock-ins, trade-offs)



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Systemic challenges require systemic solutions

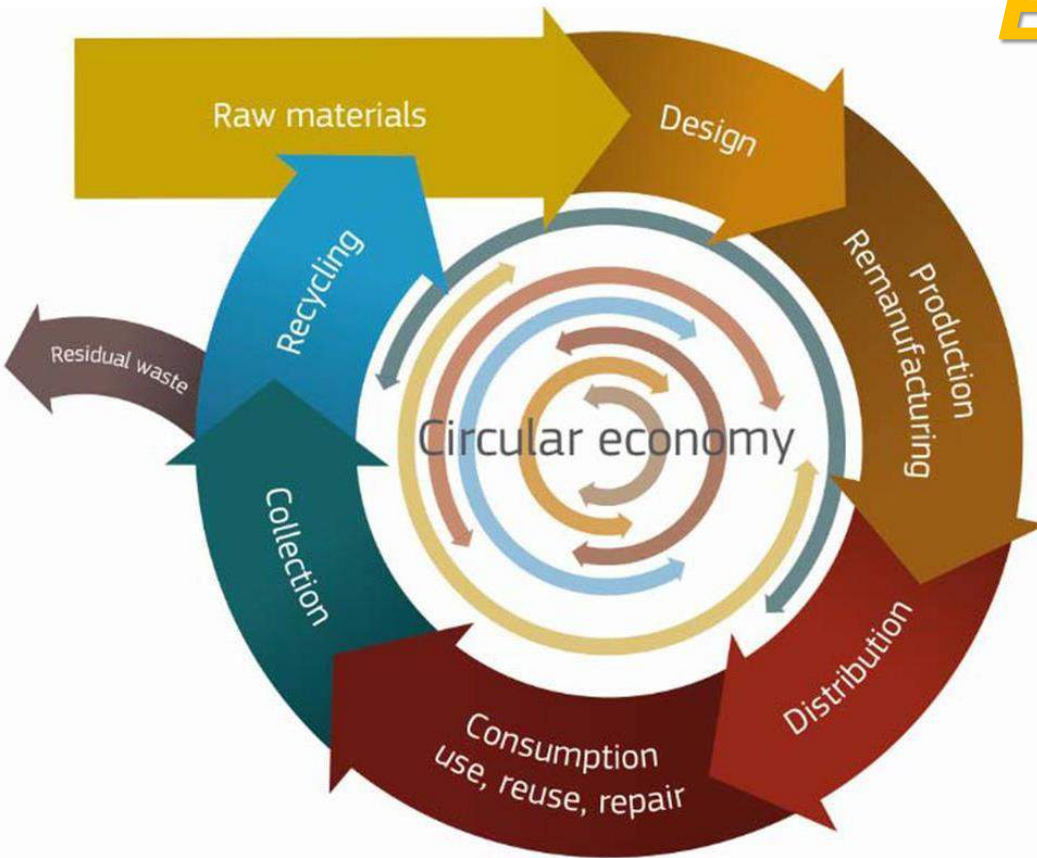




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New Circular Economy Proposal

**New more ambitious
Going beyond waste**



**Looking at
the whole
'Circle'**

**Interdependence
across the Value
Chain**

Need to ensure EU added value

- **Focus on barriers that can be usefully addressed at EU level**
- **Revised legislative proposal on waste**
- **Action plan focusing on concrete measures**

Roadmap – Circular Economy Strategy
(April, 2015)

http://ec.europa.eu/smart-regulation/impact/planned_ia/docs/2015_env_065_env+032_circular_economy_en.pdf

On going and Next Steps

- ✓ 28 May - 20 August 2015: Public Consultation on the Circular Economy
- ✓ 25 June 2015: Stakeholder conference
- ✓ end of 2015: Adoption of the Initiative

Public Consultation on the Circular Economy

- Pinpoint and define the **main barriers**
- Gather views on which **measures to overcome** these barriers

<https://ec.europa.eu/eusurvey/runner/circular-economy>

Structure of the Public Consultation

Production Phase

- Measures for product design, regulation, incentives,...
- Specific features of products, e.g. durability, reparability,...
- Production processes, e.g. cooperation across value chains...
- Priority products, white goods, Packaging materials,...

Consumption phase

- Raising awareness on circular economy, e.g. labels, advertising, marketing, Encourage financial incentives, public procurement, Encourage new modes of consumption,..
- Priority products, white goods, Packaging materials,..

Structure of the Public Consultation

Market for secondary raw materials

- Horizontal nature, e.g. lack of EU-wide quality standards for recycled materials, poor reliability of supply for recycled materials,..
- Specific types of material, e.g. Bio-nutrients, plastic,...

Sectoral measures

- Certain sectors may require a tailored approach in order to 'close the loop' of the circular economy,
- Certain sectors could be made strategic priorities in order to accelerate the transition

Enabling factors, including innovation and investment

- Financing/funding innovation (Horizon 2020)
- Public incentives for private investors
- Support for innovative systemic approaches and cross-sectoral cooperation (e.g. industrial symbiosis)
-

Research and Innovation Goals

- ✓ **demonstrating** the opportunities for moving towards a circular economy with **large scale innovation projects**, fostering skills development, and supporting market application of innovative solutions
- ✓ Making use of new funding scheme as the SME Instrument
- ✓ supporting **financing tools and advisory services** through InnovFin, in cooperation with EIB and Horizon 2020
- ✓ **regulatory innovation**: addressing regulatory barriers to innovation that hinder the development or uptake of circular economy activities or business models

Research and Innovation Goals

- ✓ **technological innovation:** designing products that can be reused, repaired, recycled and refurbished
- ✓ **social innovation:** designing services for business models that are based on performance/functionality
- ✓ **digitisation:** supporting digitisation of industry (Internet of things, big data)
- ✓ **demand side measures:** boosting innovative instruments for procurement, such as Pre-Commercial Procurement and Public Procurement for Innovation
- ✓ **Bioeconomy Strategy:** promoting the sustainable use of biological resources and waste streams, and applying the cascading principle to the use of biomass

Horizon 2020 Orientations of Work Programme 2016-2017 actions

Advisory Board for Societal Challenge Climate Action, Environment, Resource Efficiency, and Raw Materials

Group of experts

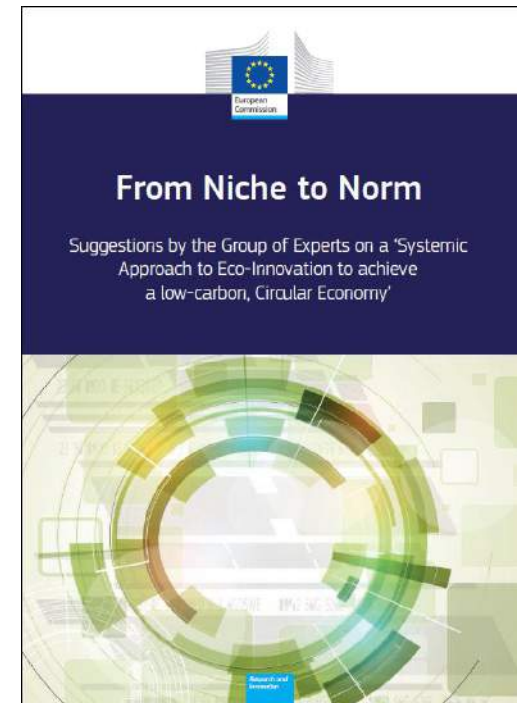
- ✓ Systemic Approach to Eco-Innovation to achieve a low carbon, Circular Economy

Call for Ideas 451 ideas received

- ✓ large-scale pilot/demonstration projects
- ✓ systemic eco-innovation for a circular economy

Going across H2020 Pillars

- ✓ Creating synergies between LEIT and Societal Challenge pillars



Better Regulation Agenda

The REFIT Platform

- collect suggestions for regulatory burden reduction
- assess their potential
- agree on those suggestions that should be brought to the attention of the Commission services and/or the national authorities
- communicate the outcome back to the stakeholder





HORIZON 2020

**Thank you
for your attention!**